bobbin is supported within the earpiece-bearing end of the instrument's case at three different points arranged equidistant apart, so that the bobbin is rigidly and accurately supported within the said portion of the case and its adjustment relative to the diaphragm is not affected by contraction and expansion of the case, as would be the consequence of a rigid connection between the bobbin and the adjacent end of the permanent magnet.

A disk *m* of insulating material is fixed upon the cores G' at the inner side of the bobbin-bearing disk.

P P designates the binding-posts with which the head C of the instrument's case is provided. The two wires *w* and *w'* that lead to the instrument engage the different posts, respectively, and each post consists, preferably, of two jaws *p* and *p'*. The jaw *p* of each post is fastened to the head C in any approved manner, whereas jaw *p'* of the post is formed by the head of a screw p^2, that engages a nut *n*, fixed within the head C. The nuts *n* are molded into the head C in the process of molding the instrument's case and are provided, respectively, with external lugs or ribs *n'*, that are embedded within the vulcanite or material of the head C, so that the nuts are positively fixed within the head and are not liable to displacement from rough usage of the instrument.

Two ends of the wire of each coil extend inwardly through the disk K and through the insulation *m* and are soldered together at G^3 at the inner side of the said disk, that has two perforations K^2 K^2 arranged a suitable distance apart for accommodating the extension therethrough of the said wire ends, and the insulating-disk *m* has perforations m^2 registering with the said perforations in the disk K. Perforations m^2 are just large enough to easily receive the wire; but the perforations K^2 are considerably larger, as shown very clearly in Fig. VI, so that the insulation of the wire will not be abraded or worn by the surrounding walls of perforations K^2, and the necessity of using insulating-bushings within perforations K^2 is avoided. Each of the other ends of the wire of the coils, or, more properly, the terminal wire ends G^4 of the bobbin, extend inwardly through registering perforations K^3 and m^3, formed in the bobbin-bearing disk K and insulating-disk *m*, respectively, and into the channel or groove R^2, formed in the outwardly-extending arm R' of a coupling-forming metallic piece R, that is interposed between the said terminal end of the bobbin and one of the wires w^2, leading inwardly from a binding-post. A perforation K^3 and the perforation m^3, registering with the said perforation K^3, are shown very clearly in Fig. VII. The perforation m^3 is just large enough to easily receive the engaging wire; but the perforation K^3, registering with the said perforation m^3, is considerably larger, so that its surrounding wall will not injure the wire and not necessitate the employment of an insulating-bushing in the perforation. Two wires w^2 w^2 are electrically connected with the different binding-posts, respectively, and extend inwardly from the posts at opposite sides, respectively, of the permanent magnet. The wire-coupling devices R are secured in any approved manner to the internal shoulder *a* of case A. One of the wires w^2 electrically connects with an inwardly-extending arm R^4 of one of the wire-coupling devices, and the other wire electrically connects with the inwardly-extending arm R^4 of the other wire-coupling device. The wire-coupling devices are arranged at opposite sides, respectively, of the bobbin. The arms R' of the wire-coupling devices are in close proximity to and have their wire-receiving grooved or channeled sides facing the surrounding wall of the bobbin-receiving chamber of the case A.

It is obvious that my improved manner of arranging or disposing of the terminal wire ends of the bobbin is meritorious, because it removes the said ends into a safe place, where they will not be harmed by careless handling of the instrument or by the use of a screw-driver employed in adjusting the bobbin-supporting screws. I would remark, also, that heretofore receivers having a vulcanite case or shell had the earpiece screwed onto external threads formed directly upon the shell. The threading of vulcanite or similar material is not very practical, and the frequent screwing on and off of the earpiece soon wears away or mutilates the threads. I have therefore molded into the outer side of the bobbin-receiving end of the case A a metal shell or ring O, that has short inwardly-extending projections O' embedded in the shell A, so as to positively fix the said annular band of metal to the case A. The ring O is externally screw-threaded to accommodate the attachment of the corresponding internally-threaded earpiece and at its outer end has an internal externally-smooth annular flange O^2, that forms a seat for the diaphragm, that is held to the said seat by the internal annular shoulder D' of the earpiece.

It is obvious that my improved construction effectually avoids the objection of forming the threads directly upon the vulcanite case or shell.

What I claim is--

1. In a telephone-receiver, the combination with the case or shell enlarged at one end to form the bobbin-receiving chamber and having an internal annular shoulder at the inner end of the said chamber: of the double bobbin within the said chamber; a disk having the bobbin fixed to its outer side, and three screws arranged equidistant apart along the surrounding edge of the disk and having, respectively, two annular shoulders closely overlapping opposite sides, respectively, of the disk, which screws are screwed into the aforesaid shoulder.

2. A telephone-receiver having a vulcanized shell or case provided with binding-posts